

## **Housing and Environmental Standards Work Group**

### **Summary**

General Assembly Building, House Room C

September 19, 2007

10:00 am

#### **Present:**

Senator John Watkins

Delegate John Cosgrove

Michael Congleton

James Dawson

Mark Flynn

John Hastings

Neal Rogers

Art Lipscomb

Ted McCormack

Ed Rhodes

Emory Rodgers

Shaun Pharr

Mike Toalson

Rick Witt

#### **I. Welcome and Call to Order by Senator Watkins (Chair)**

#### **II. Leadership in Energy and Environmental Design System (LEEDS) Presentation**

##### **A. PPT Presentation, Bryna Dunn, Green Building Organization**

1. The US Green Building Organization is a national nonprofit which was created in the mid to late 1990s.
2. Seeks to start a dialogue of topics.
  - a. Stored market transformation.
  - b. Educate the industry.
  - c. Compare standards.
  - d. Create tools that everyone can use without reinventing the wheel.
  - e. Offer expertise to those in the field.
3. **Del. Cosgrove**-*Asked Ms. Dunn to support her facts with more information.*
4. Ms. Dunn explained that both California and Washington have done studies on the positive effects LEEDS buildings have on children's learning.
5. **Del. Cosgrove**-*Reminded Ms. Dunn that her facts can be viewed in different ways and the Commission must be careful about accepting facts at face value. He asked her to be careful with how she words and presents statistics.*
6. **Sen. Watkins**-*The power point presentation and the handouts will be posted on the Housing Commission website.*
7. **Del. Cosgrove**-*Asked which third party conducts inspections for LEEDS certification?*
8. The Green Council has independent auditors that it hires to do so. They are teams of professionals such as architects and engineers.
9. **Mr. McCormack**-*Is there something for residential buildings with LEEDs certification?*
10. There is a pilot program called LEEDS for Homes. The proper certification standards and process are still being developed.
11. **Mr. Toalson**-*In September of last year, the Home Builders Association developed the Earth Craft System and Virginia became the first state to adopt this system. Developers are trained in green building design and buildings are made with help from Earth Craft. Several developments going up, one in Charlottesville.*

12. **Mr. Toalson**-*Home Craft operates on a point system. Developers receive points for things such as recycling materials rather than just throwing them away. The hope is that the public will start to ask for these types of houses. Multi-family housing is difficult to develop right now for the LEEDS standards. They are still waiting for home standards to be developed by LEEDS.*
13. **Del. Cosgrove**-*There are many benefits to Earth Craft Homes, but the many benefits must also be discussed along with the additional costs that are incurred by the builders.*
14. **Sen. Watkins**-*The Commission has the responsibility to make sure things are not done that put an undue burden on others. More statistics of the actual cost would be helpful. After the next work group session, the Commission should hear from someone on the residential side.*

**B. Move to item III on the agenda, Carbon Monoxide Detectors**

**III. Carbon Monoxide Detectors**

**A. Emory Rodgers- Virginia Department of Housing and Community Development**

1. The International Code Council will be making changes to the 2009 Building and Residential Code for Carbon Monoxide (CO) Detectors. Changes to the Code will be made in September 2008 and will go into effect in 2009.
2. The Council is trying to get information from universities on their use of carbon monoxide detectors. William and Mary has carbon monoxide detectors in most residential dorms.

**B. Ed Rhodes, Rhodes Consulting**

1. Defers his time to Lt. Stan Tinsley of the Henrico County Division of Fire.
2. Lt. Tinsley has spent 25 years as a fireman. He wrote the Carbon Monoxide (CO) response guidelines for Henrico County. CO has the same weight as air, it can be anywhere in a residence. It has a half life of 5 hours and attacks the red blood cells. Constant exposure to even low levels of CO can be deadly.
3. Safe levels are determined by how fast your body can cycle out the poison.
4. CO poisoning can result from any faulty fossil fuel burning device.
5. It effects the very young, the very old and people with heart and lung problems.
6. There are between 200-500 deaths every year due to accidental carbon monoxide poisoning. It is a silent killer that may go undiagnosed. Symptoms of poisoning resemble flu like symptoms that progressively get worse.
7. There were a lot of false alarms with the original CO detectors. More advanced detectors were metal oxide semi-conductors that plugged into the wall, however some would not give proper readings.
8. The newest detectors are electro-chemical sensors. They test for a chemical reaction and they are highly sensitive and accurate.
9. Underwriters Laboratories wanted to eliminate false alarms, so they are developing devices that detect long-term low levels of CO and short-term high levels.
10. There were instances in the past where fire departments would respond to CO alarms as Priority 2, no lights or sirens. Many times it was too late, so Henrico County now responds Priority 1, with lights and sirens.
11. There are many reasons for false alarms, but the real problem is with improper training or education and citizens or the fire department thinking there is a false alarm when really it is not.

12. Individual localities have been left to determine their own procedures for responding to alarms. There is a lack of training for responders and dispatchers. Dispatchers used to tell people to open all the windows in their house and then get out, but then the fire department would arrive and there wouldn't be any sign of CO, so it was marked as a false alarm.

**C. Comments on Carbon Monoxide Detectors Presentation**

1. **Mr. Toalson**-*How long have the electro-chemical alarms been around?*
2. 1998.
3. **Mr. Toalson**-*After training for dispatchers had been corrected, what percentage are still false alarms?*
4. 39% attributed to false alarms. 38% CO was detected, and 23% nothing was detected.
5. **Mr. Toalson**-*How many residential units have CO alarms currently?*
6. 30%.
7. **Mr. Lipscomb**-*What is the accuracy of the new detectors?*
8. It was 90% in testing, and they cost between \$25-\$50.
9. **Mr. Dawson**-*What is the balance of training in Virginia?*
10. Most localities do little or nothing. A lot of false alarms are due to poor training, not actual false alarms.
11. **Mr. Pharr**-*The Consumer Product Safety Commission would not support CO monitors legislation without some sort of liability protection being addressed. Is your data being given to other counties?*
12. Yes. I have been asked for it from several localities including Chesterfield and Richmond. Henrico County has a list of questions that are asked when responding to a CO alarm to ensure that there are no improper false alarms.
13. **Sen. Watkins**-*The lack of education in public and the response mechanisms that are used are key to solving this problem with false alarms. Cutting down on false alarms will save the counties and cities money because it costs around \$2,400 to respond to an alarm.*
14. **Mr. Lipscomb**-*Fire Department Programs should establish standards for responding to CO alarms. Perhaps the Commission could send out a letter.*
15. **Mr. Toalson**-*Has there been any loss of life when there was a CO alarm and it did not go off?*
16. Not that we know of.
17. **Mr. Rhodes**-*There are UL code sections for CO detectors, specifically UL 2075. Early next year UL will approve a system with a span of life alarm within the CO alarm.*
18. **Sen. Watkins**-*Are there any homes in Henrico that have hardwired CO alarms?*
19. Yes, there is an optional mechanism.
20. **Mr. Rhodes**-*There are also combination CO and fire alarms that can be hardwired.*

**D. Chip Dicks-Virginia Association of Realtors**

1. There is a process for residents to request landlords to install CO detectors in the Virginia Residential Act, Va. Code § 55-248.18.
2. It is a voluntary process and it is also included in Va. Code § 55-248.16. The Commission could add a requirement that residents are not permitted to tamper with the devices.

**E. Joel Saltzman from National Electrical Manufacturers Association**

1. NEMA Issue Brief Handout.

2. Smoke and CO alarms cost between \$25-\$50.
3. Both NFPA and UL set performance standards. Some states set their own standards and have to constantly update their code sections as technology advances. Better to delegate or adopt standards set by UL.
4. **Mr. Toalson**-*The International Code Council's (ICC) technology council found the effectiveness of alarms is not dependable.*
5. ICC is using mosaic studies with pre-1998 data. UL and others are certifying detectors, and they would not put their seal of certification on something that is not dependable.
6. New studies must be done and the ICC will eventually catch up once new studies are completed.
7. **Mr. Toalson**-*Asked Mr. Saltzman to address the EPA's position?*
8. The EPA was also using old data from 1998. When it was told about it they changed its website and it now directs you to the American Gas Association's website which has more recent information.
9. **Sen. Watkins**-*The work group would like to hear from Mr. Rodgers in the next year to report back on the ICC's new position.*
10. **Mr. Rodgers**-*CPSC and the EPA have wanted to mandate something in the Code, they just haven't given it the mandate tag yet.*

**F. Christian Webber**, a Richmond homeowner, advocates the adoption of CO alarm legislation. He stated it took 20 years to get smoke alarm legislation and now it is commonplace. Eleven states have CO legislation. The Virginia General Assembly should talk with legislators of the other states to see why they passed legislation on this issue.

#### **IV. Sprinklers**

##### **A. Mark Flynn-Virginia Municipal League**

1. Surveys were sent out to all cities and counties and some towns with tall buildings.
2. Surveyed buildings were those 75 feet and taller. Several have not responded to the survey. See Excel spreadsheet for responses.
3. **Sen. Watkins**-*Would like to send out a letter to those that did not respond requesting they complete the survey.*

**B.** Proceed to the issue of overcrowding, which is not on the agenda.

#### **V. Overcrowding**

##### **A. Michael Congleton, Fairfax County Planning and Zoning**

On June 1, Fairfax created a 15 member strike force to address overcrowding in residences. The Legislature passed laws strengthening enforcement of the building codes.

**B.** Final Comments will be addressed before the meeting adjourns.

#### **VI. Final Comments**

- A.** Senator Watkins-*Recommends educating the public about CO poisoning, however he is hesitant to suggest legislation without consulting how it would overlap with other agencies.*
- B.** Mr. Toalson-*Residential LEED standards are coming. In the meantime Earth Craft sets the standards for residences. It has not moved faster because there are not many inspectors.*
- C.** Mr. Witt-*ICC is working with AFA on incorporating those efforts into the Building Code.*

#### **VII. Meeting Adjourned at 12:10 pm.**